

MS Journal Appendix for MRI methodology

Hardware	
Field strength	3 Tesla
Manufacturer	Siemens & GE
Model	Prisma & Sygna HDxt
Coil type (e.g. head, surface)	Head
Number of coil channels	

Acquisition sequence		
Type (e.g. FLAIR, DIR, DTI, fMRI)	GE: FSPGR, FLAIR CUBE; Siemens: MPRAGE, FLAIR	
Acquisition time	MPRAGE: 5:09 min; FLAIR: 7:38 min	
Orientation	HFS	
Alignment (e.g. anterior commissure/posterior commissure line)		
Voxel size	FLAIR CUBE: 0.5x0.5x1mm; FSPGR, MPRAGE, FLAIR: 1mm isotropic	
TR	FLAIR CUBE: 6000 ms; FSPGR: 7.312 ms; MPRAGE: 2300 ms; FLAIR: 6000 ms	
TE	FLAIR CUBE: 122.162 ms; FSPGR: 2.996 ms; MPRAGE: 2.96 ms; FLAIR: 388 ms	
TI	FLAIR CUBE: 1872 ms; FSPGR: 0 ms; MPRAGE: 919 ms; FLAIR: 2100 ms	
Flip angle	FLAIR CUBE: 90°; FSPGR: 15°; MPRAGE: 8°; FLAIR: 120°	
NEX	FLAIR CUBE, FSPGR, MPRAGE, FLAIR: 1	
Field of view	FLAIR CUBE: 512x512x176; FSPGR: 256x256x172; MPRAGE & FLAIR: 256x256x176	
Matrix size	FLAIR CUBE: 512x512; FSPGR, MPRAGE, FLAIR: 256x256	
Parallel imaging	Yes	<input checked="" type="checkbox"/> No
If used, parallel imaging method: (e.g. SENSE, GRAPPA)		
Cardiac gating	Yes	<input checked="" type="checkbox"/> No
If used, cardiac gating method: (e.g. PPU or ECG)		
Contrast enhancement	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Acquisition sequence	
If used, provide name of contrast agent, dose and timing of scan post-contrast administration	
Other parameters:	

Image analysis methods and outputs	
Lesions	
Type (e.g. Gd-enhancing, T2-hyperintense, T1-hypointense)	
Analysis method	
Analysis software	
Output measure (e.g. count or volume [ml])	
Tissue volumes	
Type (e.g. whole brain, grey matter, white matter, spinal cord)	
Analysis method	
Analysis software	
Output measure (e.g. absolute tissue volume in ml, tissue volume as a fraction of intracranial volume, percentage change in tissue volumes)	
Tissue measures (e.g. MTR, DTI, T1-RT, T2-RT, T2*, T2', ¹H-MRS, perfusion, Na)	
Type (e.g. whole brain, grey matter, white matter, spinal cord, normal-appearing grey matter or white matter)	
Analysis method	
Analysis software	
Output measure	
Other MRI measures (e.g. functional MRI)	
Type (e.g. whole brain, grey matter, white matter, spinal cord, normal-appearing grey matter or white matter)	
Analysis method	
Analysis software	
Output measure	

Other analysis details: